RUNNING SHEET DRAWINGS FOR SURFACE WIRED UNITS DESCRIPTION

1. GENERAL

1.01 This section describes the running sheet method (used when there is no wiring diagram) of showing wiring connections to apparatus terminals on surface-wired units for private branch exchanges.

This section is reissued to incorporate material from the addendum in its proper location.

1.02 Running sheet drawings are designed primarily to perform two functions, as follows: (1), serving as wiring lists for running in non-color coded wiring on the equipment unit and (2), serving to indicate lead terminations and doubling up points for maintenance purposes in the absence of a wiring diagram.

1.03 Section 005-107-101 describes surface-wiring list drawings which list the terminations of each wire for surface-wired units for private branch exchanges and supplements the wiring diagram or circuit label applying to the unit.

2. DESCRIPTION

2.01 Running sheet drawings for surface wired equipment units are made up from the circuit schematic and the equipment drawings. Separate figures are shown on the running sheet as follows:

(a) Rear View of Equipment.

(b) Running Sheet Table.

(c) Cross Connection or External Wiring Figures.

2.02 The location of all apparatus, the relationship of terminals, and the functional designations necessary for wiring purposes are shown on the Rear View of Equipment. This terminal information is used in the running sheet to indicate the lead terminations.

2.03 The Running Sheet is a tabulation of wiring leads and apparatus terminations, with a remark column for the necessary notations and note references.

2.04 The leads external to each unit are covered by Cross Connection or External Wiring Figures where this wiring is very extensive. For small units with terminal strips where the external wiring is simple, the cross connections are shown in a column on the running sheet.

2.05 The figures for a running sheet drawing for a typical surface wired unit consisting of a mounting plate having one row of apparatus are attached.

3. DETAILS

Rear View of Equipment

3.01 The individual pieces of apparatus are shown on an outline of the mounting plate. The apparatus terminal, winding, spring, and contact arrangement is covered by means of wiring diagram conventions.

3.02 Arbitrary designations are assigned to the terminals of all apparatus except that which has terminal designations stamped on the rear where they can be seen. These arbitrary designations are assigned in sequence, numbering from left to right and from top down, "T" denoting top, "M" middle and "B" bottom, where there are two or three horizontal rows of terminals on the same piece of apparatus. If terminals are in vertical rows, "L" denotes left and "R" right. Where these designations disagree with the terminal designations on the schematic drawing, both the arbitrary and schematic designations are shown, the schematic designations being indicated by parentheses. In the case of individual terminals "" indicates top, "B" bottom, "M" middle, "L" left, and "R" right.

Running Sheet

3.03 On the running sheet table each piece of apparatus is assigned a vertical column. These columns are arranged to correspond to the physical arrangement of the apparatus as it appears from the wiring side, with blank column spaces for unequipped apparatus positions. The abbreviated apparatus name, its code and functional designation appears at the top of each column. Columns are grouped separately by means of brackets for each row of apparatus. When adjacent rows of apparatus are on separate mounting plates the groups of vertical apparatus columns are separated by blank vertical columns. If the adjacent rows of apparatus are on the same mounting plate this blank column seperation is not provided.

3.04 Each lead is assigned a horizontal line cutting across the apparatus columns numbered in sequence from top down. The leads are assigned left to right and top down both as to apparatus on the plate and as to terminals on the apparatus, except for battery and ground leads which are placed outside of the other wiring and are, therefore, run last.

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3.05 Starting with the first piece of apparatus on the left or top of the unit, which in most cases is a terminal strip, leads connecting to the top or left terminals are shown first on the running sheet. On apparatus having upper and lower sets of terminals, leads connecting to the top terminals are shown first on the running sheet as they appear left to right. Then the bottom terminals appear, and so on in this order. Apparatus terminal designations are indicated at the ends or at intermediate points on the lead lines in the proper columns. Terminal designations at intermediate points on a lead line indicate doubling up points. Referring to Fig. 1 on the attached running sheet drawing, the following examples are given to illustrate the system described.

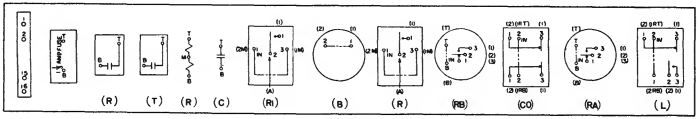
(a) The first lead, shown on Line No. 1, is a cable conductor connecting to the top punching of the terminal strip, which is the first piece of apparatus on the left of the unit. A surface lead runs from this terminal to the (T) or top terminal on the (T) condenser and from there to the (1B) terminal on the (R) relay. The first lead internal to the unit and not connected to the terminal strip is run from the (B) terminal on the fuse block, and doubled up on the (T) terminal on the (R) resistance, the (3B) terminal on the (R1) relay, the (T) terminal on the (RB) relay, the (2B) terminal on the (CO) relay and the (T) terminal on the (RA) relay and terminated on the (1B) terminal of the (L) relay, the last piece of apparatus at the right on the unit.

3.06 A column in the table to the right of the apparatus columns is headed "Remarks". Identification of battery and ground supply leads with their colors, optional wiring notes and other necessary note references are covered in this column.

Cross Connections and External Wiring

3.07 For each unit the external leads are covered on a separate Cross Connection or External Wiring Figure on the Running Sheet Drawing, similar to the conventional practice on wiring diagram drawings for local cable units.

(a) For units having a small number of external connections, the external wiring is shown in a column on the Running Sheet to the left of the terminal strip column. Circuit figures, leads to be added by the installer and similar information notes are indicated in this column.



REAR VIEW

CAUTION
(SEE NOTE 2)

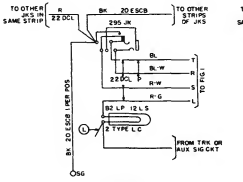


FIG.A

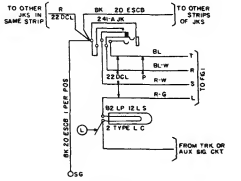


FIG.B

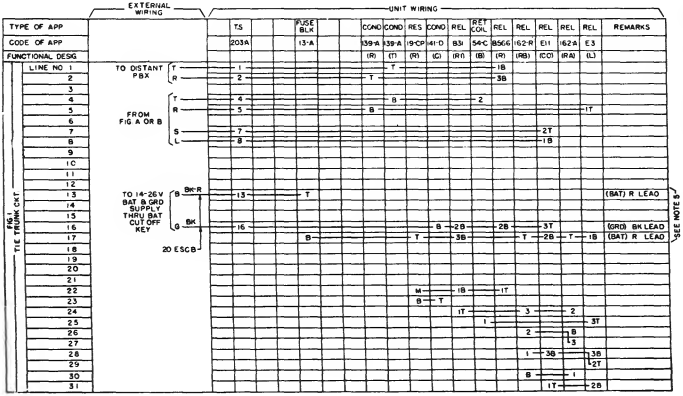


FIG.1

NOTES

1- WIRES IN FIG1 EXCEPT WHERE BARE STRAPS ARE PERMISSABLE SHALL BE 22 SCB AND UNLESS OTHERWISE COLORED SHALL BE GREEN

2- TO FACILITATE WIRING, ARBITRARY NUMBERS ARE ASSIGNED IN THE WIRING TABLE AND NUMBER FROM THE MTG PLATE SKETCH. THESE NUMBERS ARE STAMPED ON THE APP AND IS VISIBLE THRU THE MTG PLATE IN WHICH CASE THE STAMPED DESIG ARE USED BOTH SCHEMATIC AND ARBITRARY DESIG ARE SHOWN ON THE MTG PLATE SKETCH WHERE THERE ARE SCHEMATIC DESIG THEY ARE INDICATED BY PARENTHESES (.) "T" INDICATES TOP, "B" BOTTOM, "W" WHOLE, "L" LEFT AND "R" RIGHT

3- "P" DENOTES PAIR

4- Ⓛ DENOTES LIVE LEADS TO BE INSULATED WHEN NOT CONNECTED AS FOLLOWS

FIG	APP	LEAD	FIG	APP	LEAD
A	LAMP	LOOP	B	LAMP	LOOP

5- BAT AND GRD LEADS TO BE RUN LAST